

## ABSTRACT OF THE DISCLOSURE

This invention relates to an acousto-optical tunable filter generally of the kind described in U.S. Patent No. 6,266,462. More specifically, the invention relates to a filter and its construction, the filter including a support, first and second mounts at spaced locations on the support, an optical fiber having first and second mounted portions secured to the first and second mounts respectively and a filtering section between the first and second mounted portions, a signal generator operable to generate a periodic signal, and an electro-acoustic transducer having a terminal connected to the signal generator and an actuating portion, the electric signal causing vibration of the actuating portion, and the actuating portion being connected to the filtering section so that the vibration generates a transverse wave traveling along the filtering section. The filter has an improved damper to more effectively dampen waves traveling along the filtering section.